

**Abstract**

## Radiometric Measuring Device

5    Provided is a radiometric measuring device for mounting at a  
container (3) fillable with a filling substance (1). The  
measuring device, which is cost-favorable both in  
installation and operation, includes: A radioactive source  
(5), which, during operation, sends radioactive radiation  
10 through the container (3); at least two detectors ( $D_i$ ), which  
serve for registering radiation passing through the container  
(3) and for producing electrical pulse rates ( $N_i$ )  
corresponding to the registered radiation; wherein the  
detectors ( $D_i$ ) are connected together and with a  
15 superordinated unit (23) by a single line running outside of  
the detectors ( $D_i$ ). The pulse rates ( $N_i$ ) and, in the form of  
offsets ( $O_i$ ), status of the detectors ( $D_i$ ) are transmitted on  
the single line.

20    (Fig. 1)

**List of Reference Characters**

- 1 filling substance
- 3 container
- 5 5 source of radiation
- 7 scintillator
- 9 photomultiplier
- 11 protective tube
- 13 electronics
- 10 15 counter
- 17 microcontroller
- 19 offset generator
- 20 output stage
- 21 collector line
- 15 23 superordinated unit
- 25 counter
- 27 evaluating unit
- 28 memory
- 29 measuring device electronics
- 20 31 evaluating unit
- 33 turn-off switch
- 35 turn-off switch
- 37 connecting line
- 39 first input
- 25 41 second input
- 43 third input
- 45 turn-off switch
- 47 output
- 49 light conductor